Plans NOW®
www.plansnow.com

THANK YOU!

You have successfully downloaded your **FREE** PlansNOW.com woodworking plan.

► **Go to Page 1 of this plan.**

► **Got to PlansNOW and save 20% with coupon code S H E L F**

Tips for Trouble-Free Printing

►**Clear printer memory.** If you are unable to print this document, turn off your printer for at least 15 seconds and try again.

►**Get advanced printer help**. Visit Adobe Support for instructions in troubleshooting common printer problems. www.adobe.com/support/techdocs/150d6.htm

SAVE 20% **As a PlansNOW member, you'll SAVE 20% on every downloadable plan we offer!**

Playhouses & Sheds
Everything you'll need for a kid's summer entertainment.

Outdoor Furniture
Easy-to-build projects using a minimum of power tools.

Gazebos & Arbors
Make outdoor living more enjoyable this summer!

Home Improvement
Save hundreds of dollars in remodeling when you DIY.

Bedroom Furniture
Beds, dressers, armoires, cribs, cradles, and more!

Shop Jigs & Techniques
Get the most from your tools with easy-to-build shop jigs.

Craftsman Furniture
Build the same distinctive features from the early1900s.

Workbenches & Tool Stands
Sound woodworking starts with a solid workbench.

20% OFF Coupon Code for JULY 2006: SHELF

Need Hardware? Woodsmith Project Supplies **1-800-444-7527**
For plans that require unique or hard-to-find hardware and accessories, we may have a kit available for purchase.

Contact Us. Have a question about PlansNOW? We want to hear from you!
E-mail: ►planman@augusthome.com Phone: ► 1-800-333-5441 (Mon-Fri 8-5 Central time)

Plans NOW®
www.PlansNOW.com

5-step Router Tune-up

On some days, it seems like I turn my router on first thing in the morning and it only goes off with the lights at the end of the day. While this might be a stretch, I'm guessing you can relate to the value of a well-tuned router.

The emphasis here is on *well-tuned*, because when the router you depend on isn't working right, things can get frustrating real fast. That's why I make it a point to periodically give my router a quick "once over." This simple five-step tune-up only takes a few minutes and easily pays for itself in less wasted time and aggravation. The workhorse router in my shop is the *Porter-Cable 690* shown in the photos, but the same basic steps apply to almost any router.

1. Height Adjustment

First, I turn my attention to the inside of the router base and the motor housing that slides into it. The problem is that after countless bit changes, height adjustments, and the cuts that follow, these two parts get roughed up and covered with grime. Once this happens, you can forget about making the quick, accurate height adjustments that you rely on.

But solving this problem is pretty simple. First, take some fine sandpaper or an abrasive pad and use it to remove the accumulated grime, scratches, and burrs from the motor housing (photo above). Next, do the same to the inside of the base. A small wire brush will get into the grooves in the base that can get caked with dust. And after wiping down the motor and base, a light coat of spray lubricant completes the job.

2. Lock Mechanism

▲ ***Out With the Old.*** *The bolt is bent, the knob chewed up and the threads are wearing out.*

▲ ***In With the New.*** *An inexpensive solution is to upgrade to an easy-to-grip, lever-type lock.*

The next step is to inspect the mechanism used to lock the motor in place after you adjust the bit height. For most routers, this means tightening a knob and bolt to clamp the base snugly around the motor. Ideally, firm finger pressure should be all that's needed to tighten or loosen the knob — no pliers. And when tightened, the motor shouldn't budge.

Cleaning and lubrication with some light grease is the first step. This will often free up a sticky mechanism. But with heavy use, this is one part of a router that just plain wears out. So if on inspection, your lock is starting to look like the one in the photo at left, don't take a chance. You can replace or upgrade the lock and not have to worry about surprise height changes.

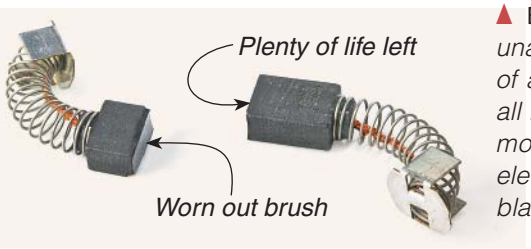
©2006 August Home Publishing Company
All rights reserved

3. Motor

Although a router motor is designed to stand up to hard use and dirty conditions, there are a couple of routine things you can do to keep it and all the other electrical parts in top shape.

Dust is the number one enemy here. It's constantly being sucked through the motor and settling in every nook and cranny. So the goal is to prevent excessive wear by keeping the inside of the motor as clean as possible. The photo at right shows how easy this is. After removing the motor cover, a sharp blast of compressed air will dislodge most of the dust. And as you can see in the inset photo, the switch and other electrical connections need attention as well.

Brushes. While cleaning the motor, I like to inspect the brushes. Badly worn or chipped brushes make the motor work harder. The near brush in the photo at left is pretty worn and ready for replacement.



▲ Blow Out the Dust. *It's unavoidable — the inside of a router traps dust. But all it takes to clean out the motor and the important electrical connections is a blast of compressed air.*

4. Base Plate

The phenolic base plate is where the router meets the wood. So naturally, it gets a lot of wear and tear. And a rough, dinged-up base plate can make routing harder and possibly leave "tracks" on the workpiece.

The simple cure for a worn base plate is shown in the photos at right. First, I make sure the base plate screws are tightened securely. Then I use some fine sandpaper on a sanding block to remove any scratches or burrs. A quick buffing with a fine abrasive pad follows. The final step is simply to minimize any friction, as shown in the far right photo.

▲ Keep It Smooth. *Lightly sanding the base plate with fine-grit sandpaper will keep it smooth and level.*

▲ ***Make It Slick.*** *A light coat of surface lubricant will make the base plate slide effortlessly.*

5. Collet

The final stop is the business end of the router — the collet that holds the bit. The goal here is to make certain the collet gets a guaranteed, rock-solid grip on the bit while also allowing hassle-free bit changes. The photos below show my short checklist.

First, I work on the shank hole in the collet. It should be smooth and clean. Next, you want to make sure the collet seats properly by cleaning the debris out the arbor socket. Finally, I lubricate the threads so that the collet nut can be tightened and loosened easily.

▲ A Clean Shank Hole. *A brass wire brush is the perfect tool for gently cleaning the shank hole.*

▲ ***A Snug Fit.*** *The accumulated dust and debris in the arbor socket should be wiped or blown out.*

▲ ***Lubrication.*** *A coat of white grease on the arbor threads ensures hassle-free bit changes.*

©2006 August Home Publishing Company
All rights reserved